



TENDER FOR

SUPPLY AND DELIVERY OF ONE (1) NEW, CURRENT  
PRODUCTION, CAB AND TANDEM CHASSIS FOR SNOW PLOW,  
ICE CONTROL, AND DUMP TRUCK OPERATIONS

Issue Date:  
February 10, 2022

Closing Date:  
March 4, 2022

**SUPPLY AND DELIVERY OF ONE (1) NEW, CURRENT PRODUCTION, CAB AND TANDEM CHASSIS FOR SNOW PLOW, ICE CONTROL, AND DUMP TRUCK OPERATIONS**

**Town of Deer Lake  
Tender Package**

The Town invites tenders for the supply and delivery of one (1) new, current production, cab and tandem chassis for snow plow, ice control, and dump truck operations.

Tender packages are available at the Town Hall, 34 Reid's Lane, Deer Lake, NL between the hours of 8:30 am – 4:30 pm, Monday to Friday (except on public holidays). Tenders are to be submitted on forms provided and contained in sealed envelopes addressed to the Town Manager, clearly marked 'TANDEM TENDER', and must be delivered to:

Deer Lake Town Office  
34 Reid's Lane,  
Deer Lake, NL A8A 2A2

Tenders will not be accepted no later than March 4, 2022 at 1:00 pm. A public tender opening will take place immediately after the tender closes.

The Town reserves the right to reject the lowest and/or any bid. The Town will not necessarily accept the lowest or any tender, and reserves the right to purchase any unit that the Town deems best overall value, and what best meets the Town's needs in machine specifications, warranty, and/or standard options

## TABLE OF CONTENTS

<b>INSTRUCTION TO BIDDERS</b> .....	4
1. TENDER.....	4
2. TENDER DOCUMENTS .....	5
3. COMPLETION OF TENDER FORM .....	5
4A. SUBSTITUTION OF MATERIALS.....	7
4. UNACCEPTABLE TENDERS.....	7
5. AMENDMENTS TO TENDER .....	8
6. ACCEPTANCE OF TENDER .....	8
7. WITHDRAWAL OF TENDERS .....	8
8. PROVINCIAL REFERENCE POLICY.....	9
9. DISCLOSURE OF TENDER DOCUMENTS .....	9
10. TERMINATION OF CONTRACT .....	9
<b>Appendix A- Tender Form</b> .....	10
SUMMARY OF QUOTATION .....	10
SIGNATURE SECTION .....	11
SPECIFICATIONS.....	12

## **INSTRUCTION TO BIDDERS**

### **1. TENDER**

- (a) Envelopes containing the Tender are to be sealed and clearly marked:

TANDEM TENDER

Addressed to: Town of Deer Lake  
Town Manager  
34 Reids Lane.  
Deer Lake, NL  
A8A 2A2

The name and address of the Bidder and the closing time must be shown on the envelope.

- (b) Tenders must be received at the above address before March 4, 2022 at 1:00 pm. TENDERS RECEIVED AFTER THAT TIME WILL NOT BE CONSIDERED.
- (c) Faxed and e-mailed tender bids will not be accepted.
- (d) Should further information be required, please contact David Thomas, Town Superintendent at [dlpublicworks@nf.aibn.com](mailto:dlpublicworks@nf.aibn.com) All questions and inquiries must be addressed via email.
- (e) Inquiries and requests for clarification shall be accepted up to three (3) business days prior to the closing time. Inquiries and requests for clarification received after this date shall not be addressed. Verbal responses shall not be binding on either party.
- (f) To ensure consistency and quality in the information provided to bidders, the Town of Deer Lake shall provide, by way of amendment to this tender in the form of an addendum to all bidders who have registered to receive amendments, any relevant information with respect to the tender inquiries received in writing without revealing the source of those inquiries. Bidders are cautioned that it is their responsibility to ensure that they receive all information relevant to this tender. The owner shall not be responsible for bidders who fail to inform themselves about the tender and relevant details.

- (g) The Town will not defray any expenses incurred by bidders in the preparation and submission of their tenders.
- (h) The Town reserves the right to reject the lowest and/or any bid. The Town will not necessarily accept the lowest or any tender, and reserves the right to purchase any unit that the Town deems best overall value, and what best meets the Town's needs in machine specifications, warranty, and/or standard options.

## 2. TENDER DOCUMENTS

- (a) The Tender Documents consist of the Instructions to Bidders, Tender Form, Specifications, and any Amendments to the Contract Documents issued during the tender period.
- (b) Every interpretation of, or addition to, the Contract Documents to be considered a valid part of the Contract Documents will be issued in the form of a written addendum.
- (c) No addendums will be issued less than two (2) business days prior to the closing date of the Tender.
- (d) Tenders shall be submitted on the form provided as appendix A.
- (e) It must be clearly understood that the specific requirements as stipulated in the specifications are not to favour one supplier over another, and therefore, where a dispute arises out of the intent of certain requirements or specifications, the Town of Deer Lake reserves the right to act as sole arbitrator in determining the legitimacy of all matters in dispute.
- (f) The delivery date will be a point of consideration in awarding the tender.

## 3. COMPLETION OF TENDER FORM

- (a) The Tender Form, including the specifications, is to be completed in its entirety. The Bidder should retain a copy of the tender for her/his records.
- (b) Type or legibly print the Bidder's full business name and full address in the spaces provided on the Tender Form.
- (c) Type or legibly print the information required on the Tender Form.

Sign the Tender Form in the space provided as indicated. In the case of a Sole Proprietorship, the Sole Proprietor will sign where indicated in the presence of a witness who will sign where indicated. Insert the words "Sole Proprietor" next to the signature.

In the case of a Partnership, all partners will sign where indicated in the presence of a witness who will sign where indicated. Insert the word "Partner" next to signatures.

In the case of a Limited Company, signatures of authorized signing officers in the presence of a witness who will sign where indicated, and the corporate seal will be affixed. Indicate next to signature the corporate title of each authorized officer.

- (d) Quotes shall be listed on the attached form.
- (e) The bidder shall provide a point- by-point response to all requirements laid out in the tender and the specifications included in the tender form.
- (f) Unit must be new and fully equipped for immediate use.
- (g) Unit must be in production (not a prototype).
- (h) All applicable taxes must be included in the tendered price. Tender price shall be all inclusive.
- (i) All prices F.O.B., Town of Deer Lake, 12 Gatehouse Road, Deer Lake, NL, A8A 1L3
- (j) Delivery time must be filled in the space provided in the summary quotation and within the specifications.
- (k) Bidders must submit full descriptive literature and specifications on the unit quoted.

- (l) If it becomes necessary to correct an error made on the Tender Form, such correction must be initialed and dated by the person or persons signing the Tender Form.

#### 4A. SUBSTITUTION OF MATERIALS

- (a) Specifications are set forth as being the minimum requirements of the products to be purchased. Where certain specific measurements or requirements are stated, it is expressly understood that the words "or equal" shall apply.
  - i. Accordingly, it is essential that all bidders must submit complete detailed specifications on the products quoted.

#### 4. UNACCEPTABLE TENDERS

- (a) Faxed and e-mail tenders will not be accepted.
- (b) Incomplete tenders will be rejected.
- (c) Incorrectly prepared tenders may be rejected.
- (d) Tenders not submitted on the Tender Form provided will not be considered.

- (e) Tenders containing qualification or additional clauses to the Tender Form will be rejected.
- (f) Any tender not conforming to the Specifications, General Terms and Conditions and Instruction to Bidders shall be rejected.
- (g) Tenders received after the Tender Closing time will not be considered.

## 5. AMENDMENTS TO TENDER

Properly documented amendments to the Tender will be permitted up to the Tender closing time. Amendments documented by fax or e-mail (PDF format) will be acceptable. Faxed amendments should be signed and dated by the individual submitting the original tender document.

## 6. ACCEPTANCE OF TENDER

- (a) The Town reserve the right to reject the lowest and/or any bid. The Town will not necessarily accept the lowest or any tender, and reserves the right to purchase any unit that the Town deems best overall value, and what best meets the Town's needs in machine specifications, warranty, and/or standard options
- (b) Upon written acceptance of the tender within the tender period, the Tender Form becomes part of the Contract Documents.
- (c) If the successful vendor cancels the contract for any reason, the Town of Bishop's Falls reserves the right to contract with another bidder meeting the terms and conditions of the original tender call.

## 7. WITHDRAWAL OF TENDERS

Bids may be withdrawn without penalty by documented fax or e-mail (PDF format) if received prior to the time fixed for the opening. Faxed requests should be signed and dated by the individual submitting the original tender document.



8. PROVINCIAL REFERENCE POLICY

Tender evaluation and award of contract for this purchase will be done in accordance with the procurement legislation and policies for the Province of Newfoundland and Labrador.

9. DISCLOSURE OF TENDER DOCUMENTS

The documentation submitted in response to this Invitation to Tender, as well as any correspondence or additional information provided to the Town by bidders, in connection with this Invitation to Tender, shall become the Town's record, and thus will be deemed subject to the *Access to Information and Protection of Privacy Act*. Each bidder's name and bid price shall be made public.

In their submission, bidders are encouraged to identify any scientific, technical, commercial, etc. information of confidential nature disclosure of which could reasonably cause them harm.

10. TERMINATION OF CONTRACT

It is hereby understood and agreed that the Town of Deer Lake reserves the right to terminate this contract and withhold payment for any or all of the following reasons:

- (a) If the good is of a sub-standard nature;
- (b) If the contractor does not adhere to all the terms, conditions and specifications of the contract.

## Appendix A- Tender Form

Supply and Delivery of one (1) new, current production, cab and tandem chassis for snow plow, ice control, and dump truck operations.

### SUMMARY OF QUOTATION

After having read and considered the Specifications (see below), Terms and Conditions for the Supply and Delivery of one (1) new, current production, cab and tandem chassis for snow plow, ice control, and dump truck operations, we hereby offer to supply and deliver the unit as follows:

**Year Make and Model Specified:** \_\_\_\_\_

**Net Price As Specified Per Unit:** \$ \_\_\_\_\_

**Shipping** \$ \_\_\_\_\_

**HST** \$ \_\_\_\_\_

**Total Price** \$ \_\_\_\_\_

**F.O.B. Deer Lake. Off loaded by supplier- Town of Deer Lake, 12 Gatehouse Rd, Deer Lake**

After reading this request for quotation, we \_\_\_\_\_  
(Name of Firm)

guarantee delivery of the specified unit to the Public Works Depot,  
Deer Lake, NL, \_\_\_\_\_ weeks/days from receipt of  
purchase order.

SIGNATURE SECTION

Authorized Signature: \_\_\_\_\_

Name and Position: \_\_\_\_\_

Witness: \_\_\_\_\_

Mail Date: \_\_\_\_\_

Address of Bidder: \_\_\_\_\_

Telephone: \_\_\_\_\_

Fax Number: \_\_\_\_\_

Email Address: \_\_\_\_\_

## SPECIFICATIONS

Number	Specification	YES	NO	Details/Comments
1	Supply and deliver 1 new, current production, cab and Tandem chassis for snow plow, ice control and dump truck operations.			
2	Tandem Truck Chassis			Make Model Year
3	Truck Dump Body			Make Model Year
4	Truck Front Plow			Make Model Year
5	Truck Front Wing			
6	It will be the responsibility of the bidder to inform the Town of any deficiencies in these specifications, for under this contract the vendor shall be held responsible for the design, performance, reliability and satisfactory operational function of the unit provided.			
7	The Truck/Plow/Sander shall be furnished complete and ready for use. All parts not specifically mentioned, but which are required to complete and place the unit into successful operation, shall be furnished as though specifically mentioned in these specifications.			
8	Unit shall be tandem axle, dump box with side dump design, and will be configured and provided with fully functional spreader and fully functional front plow blade and front Wing blade.			
9	<b>Truck Chassis</b>			
10	Unit must meet Highway Traffic Act for NL in year of delivery.			
11	Gross vehicle weight rating shall be minimum 30,000 kg.			
12	Front axle capacity shall be minimum 9,072 kg.			

13	Rear axle capacity shall be minimum 20,870 kg and 142 cm spread.			
14	Henderickson HMX suspension or approved equal.			
15	Unit suspension shall be tailored to equal or better than the axle capacity.			
16	Unit chassis to have set back axle			
17	Unit to have shortest CA possible, as recommended by the manufacturer.			
18	Unit to be equipped with driver controlled differential locks in both rear axles.			
19	Rear axle ratio to be 5.63			
20	Rear most differential shall be equipped with an oil pump and filter.			
21	Unit to be equipped with compressor providing minimum 16 CFM			
22	Unit to be provided with 2 tow hooks front and back.			
23	Chassis to be undercoated with corrosion protection.			
24	A Bendix heated air dryer, or approved equal, of suitable capacity shall be supplied for the air brake system, mounted inside the chassis rails.			
25	An air pressure protection valve shall be included to give priority to the truck air brake system.			
26	An air reservoir moisture drain valve to be included, with automatic operation on the air tanks			
27	Piggy back spring loaded park brake shall be supplied, activated by yellow in cab knob.			
28	Brakes to be equipped with automatic slack adjusters and brake travel indicators at all wheels, Bendix or approved equal.			
29	Unit to have full power steering			
30	Stemco type seals, or approved equal, shall be installed on front and rear axles.			

31	Chassis to have reinforced channel with heat treated Alloy Steel having 120,000 psi minimum.			
32	Front of frame shall be extended, baring the same engineering capacities as the remainder of the frame, by approximately 50 cm for hydraulic pump and front plow mounting.			
33	The front suspension shall allow for the weight of the wing attachment and shall keep the truck cab in a level position at aal times. Right hand spring build up required to achieve this option.			
34	DEF tank to be located on the same side of the truck as the fuel tank, not interfering with the snow equipment.			
35	Aluminum tank with minimum fuel capacity of 265 L, located under drivers side, which does not interfere with snow equipment.			
36	Steel wheels with approximately 8.25" diameter rear rims and 12" diameter front rims.			
37	Front tires shall be 20 ply, 425-65R x 22.5 Michelin XZY or approved equal) and rear tires shall be 16 ply, and 11R x 22.5 (snow and ice Bridgestone W919 or approved equal)			
38	Chassis shall be equipped with front hitch to operate a blade.			
39	Blade hitch to be attached so that bonnet and fenders can tilt forward easily to its maximum position for daily inspection. Lifting chain hook plates to be 5/8"; Lifting chain to be 1/2" short link Grade 80.			

40	Front blade hitch to be a quick coupler system installed for easy blade hookup. Coupler systems must be hydraulically operated to raise and lower and angle left or right. Must have a depressurization circuit controlled from the joystick console.			
41	<b>Truck Cab</b>			
42	Cab shall be conventional			
43	Cab shall have minimum 6 extra switches for snow clearing equipment.			
44	Fenders to be outfitted with a minimum 120 mm flexible full coverage continuous rubber fender extensions around the entire wheel well openings.			
45	Bonnet is to have hatch to provide access for daily maintenance inspections without having to open the bonnet.			

46	Fully adjustable high back air ride driver seat (National or equal). Driver's seat to be all cloth with a wide base. Comfort features: Isolator, 3 Chamber Lumbar support (lower, middle, upper), Front seat cushion adjustment, Backrest and seat cushion side support, Armrest angle adjustment, Full seat/backrest and ride height adjustments.			
47	Passenger seat shall be non suspension, high fixed back with integral headrest - to be used with batteries stored beneath.			
48	Cab shall be equipped with rubber floor mats.			
49	Cab shall have driver and passenger sun visors.			
50	Cab shall be equipped with driver and passenger arm rest			
51	Cab shall have variable speed intermittent wipers with arctic blades and windshield wash system, with largest capacity possible.			

52	Cab shall have 2 powered and heated mirrors. Brackets and arms shall be breakaway type in the range of 6" x 16"			
53	Unit to have on the right front hood location a tripod frame mounted additional 12" heated convex mirror.			
54	Extra heated mirrors shall be installed on driver and passenger side below main mirrors so driver can see spinner and passengers side blind spot; convex and approximately 8".			
55	Cab access and egress to be provided with adequate steps and grab handles to ensure safe three point entry and exit, with the first step not higher than 50 cm above the ground.			

56	Cab shall be equipped with a 3 speed heater and defroster as well as air conditioner.			
57	Cab to include coat hook located on rear wall.			
58	Cab to have two cup holders located in centre of instrument panel.			
59	Cab to have LED dome light.			
60	All windows are to be safety and tinted.			
61	Cluster to include metric speedometer, outside air temp, engine oil pressure, water temperature, fuel, transmission oil temp, tachometer, voltmeter, washer fluid level.			
62	All fluid levels on truck are to be at a maximum fill level			
63	Odometer to display Kms, trip kms, engine hours, trip hours and fault code readout.			
64	Both visual and audible warning systems for low fuel, low oil pressure, high engine temp and low battery voltage.			
65	Seat belts shall be 3 point lap and shoulder type, safety orange.			
66	Cab shall have sound insulation, with heavy duty insulation.			



67	Cab shall have air horn with snow screen.			
68	Unit shall be provided with 2 sets of keys.			
69	Cab shall have power windows and locks.			
70	Cab shall have tilt steering.			
71	The right cab door shall have lower blind spot safety window and mirror.			
72	Cab shall be equipped with AM/FM radio and have a accessible USB port.			
73	Radios shall have Bluetooth/handsfree capability.			

74	Unit shall be equipped with a dual camera system, having a minimum 7" monitor located in cab.			
75	User selectable monitor viewing of the right side from the front end looking rearwards, and directly behind for reversing. Defaults to rear view when reverse is engaged.			
76	The rear Camera shall be located on the tailgate, middle, underneath the top first rib.			
77	Cab to have floor covering made of rubber.			
78	<b>Truck Engine</b>			
79	Truck Engine shall be Cummins, or approved equal. No Max Force engine.			
80	Engine shall have minimum 370 Hp.			
81	Engine shall have minimum 1250 lb.-ft Torque @ 1400 RPM			
82	The engine shall be equipped with an Allison 3000 RDS P series automatic transmission or approved equal, filled with synthetic oil and marked.			
83	Engine shall be Tier compliant.			
84	Engine shall have dry element air cleaner			
85	Engine base pan to be made of a corrosion resistant material.			
86	Engine shall have full flow replacement canister type oil filter			

87	Engine shall have heavy duty radiator. Stone guard radiator screen in front grill.			
88	Engine shall have cold start assist.			
89	Engine electrical system shall be 12 volts.			
90	Unit to have master electrical power disconnect switch located inside the cab, between the two seats. Required to have lock out/tag out feature.			
91	Engine shall have antifreeze protection to -40 degrees C.			
92	Batteries and battery box located away from tire and road spray or otherwise sealed to prevent corrosion. Battery to be located in a seal and vented non corrosive container			
93	Batteries to be maintenance free type.			
94	Alternator must have minimum 165 A			
95	Engine must have block heater with plug located at the front of the truck.			
96	<b>Electrical</b>			
97	Lighting shall conform with the Province of NL Motor Vehicle Act			
98	Truck shall be equipped with a minimum of 5 LED cab markers.			
99	All truck markers and lights to be LED			
100	Headlights to be Heated LED.			
101	Unit to have Data link connector for vehicle programming and on board diagnostics in cab.			
102	Unit to have hazard and parking lights.			
103	Unit to have stop, turn, tail and dual backup lights.			
104	Turn signal shall be self cancelling.			
105	Protective flex-tubing is to be used to prevent chaffing of wires.			
106	Waterproof connections are to be used for all lighting and wiring, providing protection against corrosion.			

107	Auxiliary heated LED plow headlights shall be mounted so that hood function is not impeded and high enough to provide lighting in a raised plow configuration. Plow lights to have integrated signal light; wiring to be installed at the factory on a separate switch; plow lights to be mounted in such a way as to eliminate vibration; Plow lights			
	installed on the hood to have an adjustable base.			
108	Adjustable LED flood work lights shall shine on spinner and conveyor.			
109	2 LED adjustable side mounted flood work lights shall be installed so discharge can be seen. Also, 2 LED mirror mounted lights.			
110	All auxiliary lights shall be switched separately in a sealed waterproof housing.			
111	Junction boxes shall be used for tail gate lighting. All junction boxes to be sealed and waterproof. Junction boxes to be filled with dielectric grease. All wiring to be continuous from the junction box; no splicing of wires is acceptable. All cord or loom to be secured every 30 cm (maximum).			
112	2 LED strobes, 1 amber and 1 blue, shall be mounted on cab protector. (Class I)			
113	Each rear corner of dump box shall have LED blue, amber and backup. (Class I)			
114	All vehicle lighting to be controlled within cab and the entire system shall be completely sealed with waterproof junction box and lamps.			
115	There shall be no splicing into the trucks electrical system. All connections must be via a sealed and protected plug.			

116	Electrical connection junction boxes are to be located away from road and tire spray and provided with additional protection to guarantee moisture proof connection integrity. Grote Ultra Blue seal module harness system (or equivalent) to be used from junction box to both left and right rear dump posts for park, signal and backup light.			
117	<b>Dump Box</b>			
118	Dump box hoist shall be front mounted Mailhot 25 ton telescopic to provide a minimum 45 deg dump angle.			
119	Gear box for dump shall have a ratio of 25:1			
120	Dump box to be combination use of conventional dump body for regular dump truck use and equipped with driver's side longitudinal conveyor for spreader mode for salt, sand and aggregate spreading, with side dump.			
121	Larochelle-BER 1339 or Tenco TC-131-B Side Dump box spreader or preapproved equal with driver side longitudinal conveyor. The box should tip backwards for regular dump truck, use and discharge from front of the driver side when operated as a spreader. Minimum box volume capacity of 11.2 cubic yards and 24" cab protector (10 GA).			
122	Dump box front panel height shall be minimum 70 inches to the bottom of the cab protector.			
123	Dump box tailgate height shall be minimum 54 inches			
124	Dump box side panel height shall be approximately 39 inches or another size approved by the Town. Pockets shall be provided on the box side for a 2" thick			

	extension cords to increase capacity by the depth of 8".			
125	Dump box exterior length shall be maximum 15 feet <b>excluding</b> cab protector.			
126	Dump box width shall be maximum 99 inches.			
127	Dump box construction shall be reinforced, a high tensile strength steel construction, Hardox 450 or approved equal.			
128	Front, side and tailgate panels shall be minimum 3/16 inch thickness. .			
129	Dump box to have tailgate spreader chains with a grab link.			
130	Dump box must have guides, hinges and safety props to allow body to be tipped and safely supported while empty for servicing.			
131	Dump box shall have minimum 24 inch back of cab protection for loading of materials of a minimum 10 ga steel.			
132	The rear body hinge to have a minimum of 2 inch diameter pivot pins equipped with grease fittings.			
133	Dump box to have removable screens with a hatch on top of dump box.			
134	Opening and closing of the tailgate latch to be cylinder activated, in cab switch controlled, with the cylinder in the retracted position when the tailgate latches are in the locked position.			
135	Ladder, 16 inches wide, with upper hand rails having anti-slip ladder rungs (safety tread or approved equal) to be installed on left side of box with bottom rung			

	not to exceed 30 inches above ground level.			
136	Tailgate to be provided with hand operated centre gate providing an opening of minimum 1.75 square feet.			
137	<b>Dump Box Conveyor</b>			
138	Chain must be minimum 88K grade with 49,000 lbs breaking strength.			
139	The conveyor shall be recessed in the floor and covered with a steel plate, of heavier gauge than the box floor, when not in use.			
140	The steel conveyor shall be supplied with the dump box.			
141	A scraper and sweep on the return chain must be included to prevent material migration along the chain path.			
142	The hydraulic motor and gear reduction drive must be capable of turning the conveyor with a full load of sand, one complete revolution within 70 seconds or less at 1500 engine RPM.			
143	Conveyor shafts to be mounted on self-aligning bearings equipped with grease fittings.			
144	Conveyor chain tension adjustment mechanism to be provided.			
145	Dump box conveyor shall be supplied with ground speed oriented servo metering device to ensure continuous constant application rate of material at variable ground speeds.			
146	Flow control rate to be provided with a screw type adjustable mechanism, to include a calibrated scale and a seal device to prevent unwanted tampering.			

147	The application controller must be capable of controlling solid material.			
148	<b>Left Side Discharge</b>			
149	Front left hand discharge direction is to be provided.			
150	The spinner spreader location will be front left just ahead of left tandems.			
151	Left side equipped with a chute and spinner assembly.			
152	Conveyor shafts to be mounted on self-aligning bearings equipped with grease fittings.			
153	Side discharge conveyor to have sufficient clearance above, and tall enough sides and seals to prevent unwanted material spillage.			
154	Driver side longitudinal conveyor to have sufficient speed to promote a constant material supply to the spinner.			
155	Assembly to be bolt mounted to the frame to allow easy removal for servicing.			
156	<b>The Spinner</b>			
157	The single spinner assembly shall be mounted behind the cab but forward of the left hand side rear axle with extra reinforcement to the arm from the chassis to keep spinner assembly free from extra vibration.			
158	The spinner and discharge chutes shall be separate components.			
159	Spinner shall be able to adjust up, down, inward and outward			
160	Chute shall be adjustable to different angles and the narrowest part of the chute shall be a minimum 25 cm wide. Chute to be polymer or polymer-lined.			

161	The spinner shall be hydraulically driven with reversable function. Connection to spinner motor to be quick disconnect. Provision must be made to attach ends of flexible hoses to dump box frame when disconnected from spinner motor.			
8 162	Spreading width shall be adjustable from 1 to 12 meters and to remain constant regardless of truck speed or engine rpm.			
163	Spinner assembly to be easily and quickly removable (1 bolt on handle for change over to regular dump truck use).			
164	The spinner shaft to be a minimum of 22 mm diameter and roll on 2 sealed ball bearings equipped with provisions for greasing or with permanently sealed bearing and protective outer cover tube.			
165	Spinner size to be minimum 45 cm in diameter with spinner divided into equal segments with fins. Disc is polyurethane or polyurethane coated. Adjustable deflector hood around the spinners to control material spread location.			
166	Spinner hydraulic motor shall be Char-Lynn #1 or approved equal.			
167	Unit shall have an adjustable hinged cone type guard over the spinner to constrain upward travel of material.			
168	Lowest point of spinner must have a minimum 35 cm of ground clearance.			
169	<b>Hydraulic Pump</b>			
170	The pump shall be a variable displacement piston pump to be capable of providing sufficient volume and pressure as required to perform all of the trucks required output function concurrently.			



171	The pump shall be front engine crankshaft driven.			
172	Input shaft on the pump shall be splined, 1-1/4" keyed.			
173	Pump drive shaft to be supplied with keyed of sufficient length to allow telescopic retraction of the shaft in order to change fan belt without pump removal.			
174	The fluid inlet port of the pump shall be 2 inch diameter. All suction lines need to match the port side.			
175	Inlet and outlet ports shall be supplied for flange type couplings to attach lines. SAE solid flanges and O rings, size 1 and 2 inch shall be supplied. Threaded body parts are not acceptable. No black iron piping is acceptable.			
176	<b>Hydraulic Valve Bank</b>			
177	The valve bank shall be located behind the cab, and accessible in a seal box that will allow room to work on valve bank.			
178	All sections must be equipped with a manual override system.			
179	Each section shall be clearly marked to identify its properties.			
180	All section spool proportional control.			
181	The valve bank supplied shall have sections that will permit interchange ability of spools.			
182	All inlet and outlet work ports on each section and end covers shall be constructed to accept SAE O ring connectors.			
183	The valve assembly shall be capable of operating at -40 degrees C. If required, the system shall be equipped with a purge valve system for cold weather operation.			
184	Box hoist - 1 only proportional 3 way tandem centre, 25 GPM.			
185	Plow angle - 1 only proportional 4 way tandem centre, 10 GPM.			

186	All valve assemblies shall be flow tested for leaks and adjusted for specified GPM for each section.			
187	Complete valve bank must be fully functional and contained within a moisture proof containment box having inside dimensions of large enough size to facilitate easy repair and maintenance of the valves contained within. Enclosure to have a powder coated black paint (Aluminum/stainless steel acceptable); All hardware to be stainless steel; Valve to be mounted internally to a transition plate for improved sealing and easy removal for servicing if required.			
188	<b>Hydraulic Valve Controllers</b>			
189	To be equipped with an dual electronic programmable joysticks mounted in an armrest console for plow and wing controls. Joysticks are to incorporate a deadman button for safety. Joysticks are to be programable for function speeds through the in cab spreader control.			
190	Function of operation of joystick and selector switches to be clearly labelled.			
191	All controls for dumping, spreading, blade lift and angling, etc. must be pedestal console mounted for ergonomic comfort and ease of application by the vehicle operator.			
192	The pedestal to provide for at least 5 inches of variable adjustment range throughout three dimensions (fore & aft, up and down, and left to right).			
193	Controls to be positioned per customer preferred lay out as joystick function and selector switch function.			

194	Required variations for different location and layout to be approved prior to order placement, by Town.			
195	<b>Filters</b>			
196	Filter shall meet capabilities and flow of the pump supplied.			
197	1 only in line cartridge element pressure filter and housing shall be supplied with minimum #16 SAE O ring thread.			
198	Filter shall meet flow capabilities and pressure of pump and provide filtering levels to 10 microns absolute			
199	Filters shall be provided with bypass capabilities.			
200	1 only in line spin on element return filter and housing shall be supplied with NPT fitting connections.			
201	Filter shall be supplied with house for NPT fittings.			
202	Filter shall have a rating of 10 microns and shall have bypass capabilities.			
203	Housing supplied with a 0-25 psi pressure restriction gauge.			
204	<b>Hydraulic Reservoir Accessories</b>			
205	Reservoir to have low oil level alarm, located inside the vehicle cab.			
206	Reservoir to have oil sight glass including an oil temperature gauge provided. Sight glass shall have 5 inch c-c mounting holes.			
207	Oil reservoir to have a convex curved or sloped top surface area to ensure self cleaning by reducing the collection/retention of trash.			
208	Hydraulic oil reservoir capacity to exceed 70 L, and be capable of providing sufficient volume as required to perform all of the trucks required output functions			

	within acceptable industry standards.			
209	1 only 12 inch round clean out cover with 5/8 inch securing bolt in centre of dome or approved equal shall be supplied.			
210	1 only test port connector, quick disconnect to match test gauge shall be supplied at valve inlet.			
211	Tank shall be vented by a screw on type breather filter having 10 micron capability with replaceable element and NPT adapter shall be supplied.			
212	<b>Hydraulic System</b>			
213	The hydraulic system shall be a central system to allow raising of body for conventional dumping without disconnecting the hydraulic conveyor or spinner motor.			
214	Hydraulic lines, on the frame and with the box, which run in a straight line shall be made of stainless steel tubing. These lines and flexible hoses shall be designed to withstand the operating pressure with a safety factor of industry standards.			
215	All hydraulic lines to be positioned as to not allow for chafing or twisting. PVC shielding (or equivalent) covering to be used where supply and return hoses move under normal operation.			
216	Connection to spinner motor to be quick disconnect.			
217	Components of entire hydraulic system shall be protected by relief valves.			
218	Fluid flow to spreader control functions shall remain constant with varying engine speed.			

219	All hydraulic valves for blade, dump and sanding controls must be fully functional and contained within a moisture proof stainless steel containment box having inside dimensions of large enough size to facilitate easy repair and maintenance of the valves contained within.			
220	The box is to include an easily removable cover to allow access for cleaning and servicing.			
221	All hydraulic and air cylinders supplied shall be severe duty type with replaceable piston seals and rod seals and piston rods shall be either induction hardened steel with hard chrome plating to a minimum thickness of 0.004 inch or be hardened nitride steel.			
222	<b>Electronic Spreader Control System</b>			
223	Spreader control will have an easy to read display during both day and night operations.			
224	Spreader control will have adjustable spinner control			
225	Spreader control will have a blast button for temporary increased application rate control.			
226	Spreader control will have a power on and off switch.			
227	Spreader control will have adjustable spread rate control.			
228	Dump box spreading conveyor shall be supplied with ground oriented servo metering devices to ensure continuous constant application rate of material over a variable speed and engine rpm range.			
229	The system shall be powered on the accessory side of the ignition switch, shutting down when the key is turned off.			
230	<b>Truck Front Blade Coupler System</b>			

231	Truck will be equipped with a low mount style front blade coupler configured to operate hydraulic reversible front blade. Blade hitch and blade to have quick coupler system installed for easy blade hook up.			
232	The quick coupler hoses for blade angle must be routed and mounted to the left of the plow hitch on the left front side of the truck plow frame at a height close to the top of the truck frame rails, and must extend 3 inches.			
233	The blade angle hydraulic hose connections to be provided with a specialty coupling allowing the operator to couple and uncouple the connection with residual pressure in the hydraulic circuit.			
234	Hydraulic circuit quick coupler connections are to be securely anchored, providing ample operator hand access at the junctions positions, and are to be equipped with identified matched pairs that cannot be mistakenly attached in error. Couplings are to be connected to a depressurization circuit through the joystick armrest.			
235	The front blade hydraulic lift circuit is to include an adjustable cushion ride mechanism incorporated with the lift cylinder, mounted on the front plow attachment coupler frame such as the Larochelle, LSS-100 or approved equal.			
236	Length extension ahead of truck grill for the pivot points of coupler hoist and lower blade attachment pivot anchor must be less than 30 cm.			
237	An opening, or removable by bolt fastener centre access panel allowing access area in front of the hydraulic pump allowing removal and servicing of front pump of approximately 45 x 45 cm.			

238	All cylinder rods shall be nitrate process treated using a salt bath treatment such as ARCOR N Premium, coated with a poly resin with a manufacturer's warranty of at least two years and shall be rebuildable. Mailhot model or equivalent.			
239	The low mount style coupler system are to be provided which will allow conventional opening of engine bonnet without requirement of any additional component repositioning or relocation.			
240	Unit must have 5/8 inch, minimum, cheek plates and push plates.			
241	<b>Front Mounted Dual Angle Snow Plow</b>			
242	Eleven foot, full trip power reversible front snow plow blade.			
243	Full trip blade with minimum 2 springs			
244	Width of blade at 0 degree angle to be 11'. Blade to provide at least an 8'9" clearing path at 35° angle..			
245	Required clearing angles to be operator selectable from 0° angle to at least a 35° angle in either direction, left or right.			
246	The attack angle of the blade cutting edge must provide an adjustment range from 70° through 80° when mounted on the truck.			
247	The design arc or the moldboard should have the top edge leading forward of the cutting edge by at least 20" when the attack angle of the cutting edge is set at 80°.			
248	Warranty of one year on parts and labour must be supplied.			
249	Moldboard height to be at least 42" or greater, but not to exceed 56".			
250	Moldboard material to be steel, not less than 10 gauge.			

251	Angle reversing/adjustment provided via - dual double acting cylinders with nitrated rod.			
252	Reversing cylinders hydraulic circuit to incorporate a cushion valve pressure release for overload/shock load protection.			
253	To be equipped with a heavy duty drive frame.			
254	Drive frame blade angle adjustment and support member is to have heavy duty perpendicular rib reinforcement to prevent warping or bending from plowing stress (1/2" X 3" minimum). Perpendicular rib reinforcement to include two mid ribs, and a continuous full arc circumference located at or near outer edge of frame.			
255	Blade moldboard drilled 2" from outside edges and have a 4" spacing center to center for all other bolts. 5/8" bolts to be used			
256	Cutting edge must be 3/4" thick X 8" carbide reversible.			
257	A flexible reinforced rubber deflector flap 12" wide by 1/2" thick, installed on the upper front edge along the length of blade installed to act as a forward curled snow deflector extension.			
258	Blades must be painted a highly conspicuous colour for maximum night visibility. Standard commercial equipment yellow or a bright orange are recommended.			



259	To be installed on the back, at the outer discharge ends of both left and right side end, a large reflective highly visible (red/white conspicuity reflector tape) panel sign (approximately 12"wX 18"h) To be positioned at the optimal angle when plowing so as to provide maximized view to traffic approaching from the rear.			
260	To be installed on the back, top, at the left and right side outer end of the blade, a durable (steel with cable construction) flexible bright reflective position indicator (2"w X 8"h) to provide the operator and approaching traffic with a visual reference of the position of the extreme outer end of the blade.			
261	Blades to have a curb runner installed at the left and right ends of the blades.			
262	<b>Patrol Style Side Wing</b>			
263	Unit to have 1 super blue plow tip light mounted on rear outer end of wing facing rearward in a plow down configuration.			
264	Unit shall have an auxiliary joystick provided for wing plow control.			
265	11 foot rear right hand side mounted front wing, Larochelle model 11W120R, or approved equal.			
266	Wing must be power hydraulic controlled from centre console in the truck cab.			
267	Cutting edge length shall match the blade.			
268	Wing shall be mounted to trucks utilizing a front tower and rear patrol type support design. The bottom of the mounting front post and rear support are to provide a minimum of 12 inches of clearance above ground.			

269	Front tower frame and rear frame support attachments shall extend to both chassis frame rails to ensure force is distributed evenly across the truck.			
270	Chassis cheek attachment plates to extend 16 inches forward of 6 inch aft of the cross connection support. In addition to cross member vertical supporting, triangular load bracing to extend from wing slider position to the ends of the cheek plates.			
271	Forward mounting post to allow for easy wing removal.			
272	The forward mounting post to offer a minimum 15 inches of vertical blade lift to the fully raised position. This front wing lift must include a floating position allowing a minimum 4 inches of free travel.			
273	In the carry position the wing plow shall be brought parallel to the body unit in order to maintain overall width of the plow truck to a minimum, secured in the transport position plow blade shall protrude less than 20 inches from the side of the truck body.			
274	The rear patrol style lift assembly is to be a hydraulically operated telescopic, retractable, heavy duty single lift push arm assembly.			
275	Rear attachment push arm is totally detachable from the support by the removal of a single pin and disconnection hose quick couplers.			
276	Hydraulic circuit quick coupler connections are to be securely anchored, providing ample operator hand access at the junctions positions, and are to be equipped with identified matched pairs that cannot be mistakenly attached in error.			

277	The operation of the front wing attachment shall be provided with a wing floating mechanism in order to allow wing plow to follow the road contour.			
278	Wing plow shall be equipped with a 4-8-30 deg high lift roll over protection trip mechanism having a rubber spring tension adjustment.			
279	The rear wing extend/retract hydraulic circuit is to include a cushion valve for overload protection.			
280	The push arm shall be free to pivot in their mounts to allow safe storage against the wing when the wing is not mounted.			
281	Cutting edge must be minimum $\frac{3}{4}$ " x 8" reversible carbid tip			
282	To also have 4 equidistant spaced rubber wear pads installed along the mouldboard.			
283	Moldboard is to be 3/16 inch (7 Ga) thick.			
284	Wing shall be supplied complete with all hoses, valves and hydraulics required to facilitate its attachment to the truck.			
285	Standard commercial safety yellow colour.			
286	Wing blades must be equipped with 2 (1 front and 1 rear) safety chains of sufficient strength capable to support the wing in the carry position while travelling, or as required in the event of a hydraulic or mechanical failure.			
287	All safety chains are to be attached to the wing with shackles, not welded chain method.			
288	Location of chains and attachment points will provide optimum multiple failures protection without any operation			

	interference. Final location to be approved by the Town.			
289	Adjustment and latching mechanism for the chains shall be able to be performed from ground level.			
290	Where it is necessary for operators to access elevated positions, a suitable safe slip proof foot thread(s) and handles shall be installed, in such a manner so as not to impede any operations of the complete unit.			
291	To be installed on the top back of the blade, at the outer discharge end, a durable flexible bright flag stick position indicator to provide the operator with a visual reference of the position of the extreme outer end of the wing blade.			
292	<b>Auto Lube System</b>			
293	Vehicles are to be equipped with an auto lubrication system Groeneveld single line EPO grease system or approved equal.			
294	Supplies grease to all points that can be utilized with an automatic greasing system, including the side wing.			
295	System constructed of corrosion resistant brass or stainless steel injectors, fittings, distribution blocks and connectors.			
296	System to have a minimum of a 4 liter closed sealed grease reservoir that can only be filled through an in line grease filter.			
297	System to be provided with a pneumatic pump powered by the truck air cylinder liners.			
298	Pump to be capable of providing a minimum pressure of 750 psi.			

299	Pump pressure activated injectors to provide adjustable flow rates allowing for each grease point to be individually adjustable for the amount of grease received at that point.			
300	To be a parallel supply line system, eliminating negative effects to other grease fittings if one grease fitting malfunctions.			
301	Supply lines to be rated for high pressure grease use, to be constructed of corrosion resistant material such as nylon, stainless steel or copper nickel.			
302	Areas of heavy movement or prone to damage requiring extra protection should be equipped with wire braid hydraulic lines.			
303	Supply lines to be easily installed and replaced, and mounted to provide the maximum protection from chafing and interference with other components.			
304	Electronic controls to be installed inside a waterproof box to provide moisture proof protection.			
305	Electronic control to provide operators alert functions to normal operations or pressure malfunctions via warning lights or buzzers.			
306	System test button to allow maintenance to perform a test of the systems functioning, including a pressure operating gauge.			
307	System to provide an override with a continuous cycle to allow for filling of the new lines and replacement grease during heavy duty maintenance cycles.			
308	The timing system shall be capable of providing readouts of the number of cycles, the number of alarms and consecutive alarms.			

309	System shall provide consistent grease application rate, to be unaffected by temperature shifts.			
310	System to include an automatic low level warning indicator.			
311	Systems components to be built by an ISO 9001 registered company.			
312	Vendor must provide with the tender a document with a detailed listing of each individual grease point on the truck chassis and for all the attachments that is to be included with an automatic lubrication system.			
313	The auto lubrication system is to include all of the grease point's possible (non rotating fittings) on the truck chassis and the attachments that are manufacturer recommended for a greasing frequency of 500 operational hours or less.			
314	A grease chart shall be supplied with the Unit.			
315	<b>Miscellaneous</b>			
316	Truck to be equipped with mud flaps on rear axles in front and rear of wheels, front axle provide with rear mud flaps, plus one additional mud flap installed approximately 24 inches in front of spinner to help prevent snow/slush from affecting spinner pattern consistency, possibly the rear of right side cab step.			
317	Frame and undercarriage to be painted black.			
318	Backup alarm to be installed, Brigade SA-BBS-97 or approved equal.			

319	All accessory wiring must be done with moisture proof connections, and protected from pinching and abrasion by conduit, junction boxes where available, and secure fastening. Connections shall be soldered and sealed; butt splices and crimp connections are not acceptable. Main wire harness for body lamps shall be Grote Ultra Blue with plug connected Grote jumper cables to individual body lamps.			
320	All accessory wiring to be coloured and number coded.			
321	Trucks are to be provided with a legible manufacturers door post weight sticker showing the vehicles VIN, Gross Vehicle Weight Rating and also to include front and rear axle capacity.			
322	Truck Cab painted white and dump box painted grey.			
323	Operator Training			
324	Provide two appendixes, "A" Chassis and "B" Body, which are to provide a comprehensive list of fast moving maintenance parts and consumable service parts required for each of the two major components, based on manufacturer's recommendations. Parts and service manuals must be provided in either a digital or hard copy.			
325	Operator training is required for Town employees in Deer Lake following delivery. Sessions, as required, covering proper operation and daily maintenance for up to 10 operators must be provided. Training must be conducted by factory authorized personnel for operators.			

<p>_____</p> <p>326</p>	<p>The bidder must be a manufacturer and/or factor branch, which is located in Newfoundland, Canada, engaged in the business of selling, dealing, and servicing the equipment bid upon, and must maintain a responsible stock of parts in its local Newfoundland facility. Parts fill rate must be listed. Parts fill rate is _____%. Approximately inventory value of stocked parts in Newfoundland must be listed. _____ . Closest service and parts facility must be listed.</p> <hr/> <p>Bidder must be able to produce such reasonable stocked parts as needed within 24 hours of request. The successful bidder must also have a minimum of two factor trained mobile technicians, which are available in a reasonable time for service and/or repairs and located within 250 km of the Town of Deer Lake, Newfoundland. Distance from nearest technician to be listed. _____ km. Also, any major component deficiencies requiring the machine to be floated back to its closest manufacture repair shop will be included (at no extra cost) for a minimum of six (6) months from delivery date. It is agreed that shipping/float costs for a minimum of the first six months from time of machine delivery will be covered by the bidder, and all float arrangements would be made through the bidder prior to a machine shipping for any warranty work. Terms are warranty are to be specified by the bidder and included.</p>		
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